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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 25

Application Number: 08/950,445
Filing Date: October 15, 1997
Appellant(s): Joseph B. KEJHA

Joseph B. KEJHA
For Appellant

EXAMINER'S ANSWER

This is in response to appellant's brief on appeal filed December 10, 2001.

(1) Real Party in Interest

The brief does not contain a statement identifying the Real Party in Interest.

Therefore, it is presumed that the party named in the caption of the brief is the Real Party in

Interest, i.e., the owner at the time the brief was filed. The Board, however, may exercise its discretion to require an explicit statement as to the Real Party in Interest.

(2) Related Appeals and Interferences

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed. Appellant's statement that "all amendments have been entered" is not precisely correct in that the amendment received March 14, 2001 (amendment "B", paper no. 18) was not entered as it was not in conformance with the new formal requirements for entry of amendments.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 10, 11, and 12 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8), by providing separate arguments directed to each of the claims

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

3,517,766	De Witt H. WEST	6-1970
5,143,025	John F. MUNDAY	9-1992
5,462,021	Takanori MINAMI et al.	10-1995

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim 10

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over West (US 3,517,766) in view of Minami et al. (US 5,462,021, filed 03/1993; 07/1994). West teaches a passenger vehicle which rides on 1-4 wheels (2r, 2f), and thus at least 2 wheels, to the breadth claimed, having a body (1) an internal combustion engine (14) which is not sealed from the atmosphere, a pair of generators (16, 17) driven by the engine, a battery (10) connected to the generators and motor (11), the electric motor (11) connected to both the battery and generators, the motor for driving the vehicle, wherein the vehicle is further provided with a steering system (6, 7). The reference of West fails to teach the internal combustion engine as being fueled by hydrogen obtained from an on-board storage system.

Minami et al. teach a vehicle (109) which is provided with an internal combustion engine (1) which is fueled by hydrogen which is obtained from an on-board storage system (2), the use of a hydrogen engine being preferred in view of the well known "clean" emission properties of hydrogen engines (col. 1, lines 16-17). It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the internal combustion engine and fuel source of the vehicle of West with a hydrogen engine and fuel supply as taught by Minami et al. for the purpose of greatly reducing vehicle emissions, as specifically taught by Minami et al.

Claims 10, 11 and 12

Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over West (US 3,517,766) in view of Munday (US 5,143,025). West teaches a vehicle riding on 1-4 wheels (and thus 2 wheels, to the breadth claimed), having a body, an internal combustion engine

which is not sealed from the atmosphere, a pair of generators driven by the engine, a battery connected to the generators and motor, the electric motor connected to both the battery and generators, the motor for driving the vehicle, wherein the vehicle is further provided with a steering system. The reference of West fails to teach the engine as being powered by hydrogen, the hydrogen being obtained through the electrolysis of water from a generating cell, and stored not under pressure, the cell electrically connected to the generators and battery.

Munday teaches a very low emission (col. 1, lines 1-31) vehicle engine (10) operated on a hydrogen fuel from hydrogen obtained from a hydrogen storage element (16, 36, 40) which directly feeds hydrogen generated by electrolysis of water in a cell (56, 60, note col. 4, lines 5-20), to the engine and stores the hydrogen under no additional pressure, the cell being electrically connected (58, 64) to a source of electricity. It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the engine and fuel source of the vehicle of West with a hydrogen engine and fuel supply as taught by Munday for the purpose of greatly reducing vehicle emissions, as specifically taught by Munday.

The reference of Munday fails to specifically teach that the electric supply be from both a generator and a battery, however, in view of the vehicle of West featuring both a battery and a pair of generators, it would have been obvious to one of ordinary skill in the art at the time of the invention to allow selective connection of the generating cell of Munday to either electricity source (i.e., the battery and/or generators), for the purpose of allowing the cell to be operative under circumstances wherein one or the other of the sources is not in operation.

(11) Response to Arguments

(a) The rejection of claim 10 over West in view of Minami et al.

As regards the reference to Minami et al., it appears as though appellant is attempting to rely upon a disclosure document which was filed more than two years previous to the filing of the parent application (January 12, 1993 being more than two years prior to January 17, 1995). Appellant is reminded of the following which concerns the treatment of disclosure documents:

(the following is copied from M.P.E.P. chapter 1700)

MPEP 1706 Disclosure Documents [R-1]
**> A service provided by the U.S. Patent and Trademark Office (PTO) is the acceptance and preservation for two years of "Disclosure Documents" as evidence of the date of conception of an invention.

THE PROGRAM
A paper disclosing an invention (called a Disclosure Document) and signed by the inventor or inventors may be forwarded to the PTO by the inventor (or by any one of the inventors when there are joint inventors), by the owner of the invention, or by the attorney or agent of the inventor(s) or owner. The Disclosure Document will be retained for two years, and then be destroyed unless it is referred to in a separate letter in a related patent application filed within those two years.

THE DISCLOSURE DOCUMENT IS NOT A PATENT APPLICATION, AND THE DATE OF ITS RECEIPT IN THE PTO WILL NOT BECOME THE EFFECTIVE FILING DATE OF ANY PATENT APPLICATION SUBSEQUENTLY FILED. LIKE PATENT APPLICATIONS, THESE DOCUMENTS WILL BE KEPT IN CONFIDENCE BY THE PATENT AND TRADEMARK OFFICE. [*emphasis in original*]

As regards the combination of the references to West and Minami et al., appellant's arguments concerning various features of the invention which are not recited in the claims are

noted, but appellant is reminded that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. Appellant has argued that the reference of Minami et al. is limited in range, however no vehicle range limitations are set forth in the claim. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

As regards appellant's arguments that Minami et al. fail to recognize that a supposed range limitation can be overcome by the combination with an electric hybrid configuration, the examiner agrees, however, Minami et al. do specifically teach the desirability of providing a hydrogen fuel system for an internal combustion engine for the reduction of emissions (specific citations are provided below, in the section entitled '*Points pertinent to both rejections*'). Please note that the fact that appellant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

In response to appellant's arguments against the references individually (e.g., that West fails to teach a hydrogen fuel system, or that Minami et al. fail to teach a hybrid vehicle), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

(b) The rejection of claims 10-12 over West in view of Munday.

Firstly the examiner notes that appellant's arguments concerning this rejection have been directed with specificity only to claims 11 and 12 (pages 23-25) and not to claim 10.

Appellant has argued, with respect to claims 11 and 12, that Munday fails to teach a storage tank (supposedly recited in claim 11) or both a storage tank and generating cell. Claim 11 does not recite a storage tank, although it does recite that the engine may be fueled by hydrogen produced by electrolysis of water. Munday teaches a system which produces hydrogen by the electrolysis of water and it is believed that this meets the limitations as set forth in claim 11.

As regards claim 12, the storage tank is described generally as element 16 with hydrogen and oxygen portions 36, 40), and the generating cells as elements 56, 60 and 62. Hydrogen is stored for the time after its generation in the cells (e.g., 56, 60) before it is drawn into the engine (e.g., through 20). Appellant's claim does not require that these elements be separately located from one another, and in that they are separately described and treated (gas generation specifically occurring only in the cells 56 and 60, or 60 and 62, for example), the characterization of portion 36 inside 16 as a storage element is not deemed an incorrect interpretation, particularly in light of appellant's not having specified a particular time required for the hydrogen to be stored. The gas is stored, to the breadth recited, for the time between its generation (in 56 and 60, for example) and its use in the engine.

As regards appellant's arguments that Munday fails to teach the tank and generating elements in parallel, the examiner notes that this limitation is not claimed and appellant is reminded that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns,* cited above.

In response to appellant's arguments against the references individually (e.g., that West fails to teach a hydrogen fuel system, or that Munday fails to teach a hybrid vehicle), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, and *In re Merck & Co.*, both cited above.

(c) Points pertinent to both rejections:

As regards appellant's contention (point "1" presented originally on page 22, and subsequently reiterated on pages 23, and 24 of the Brief) that no reason for the desirability of the combination is set forth, appellant's attention is specifically directed to the reference of Minami at col. 1, lines 16-17 and Munday at col. 1, lines 1-31, and col. 2, lines 26-29 and lines 37-39 which both disclose the desirability of the use of hydrogen fuel in internal combustion engines for the very desirable result of lower emissions. As regards the reference of Munday not providing particular details concerning the provision of electric power, the examiner would suggest a reading of Munday at col. 4, lines 61-64, col. 5, lines 20-22, and col. 5, line 59 through col. 6, line 51. In view of Munday's description of the power system,

and the use of a DC supply (note col. 6, lines 45-48, for example), it would not be considered beyond the skill of the ordinary practitioner to connect the DC operated system of Munday to a DC vehicle source as taught by West.

As regards appellant's contention (points "2" and "3") that the references fail to specifically teach the combinations, note, for example, the reference of Munday at col. 2, lines 37-39, where Munday specifically refers to the application of a hydrogen fuel system to an existing internal combustion engine. The improvement which results from such a retrofit is discussed in Munday at col. 1, lines 6-31.

Further as regards appellant's contention that the specific combination must be suggested by the references, this is not the case. Indeed, a conclusion of obviousness may be made from common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference (see *In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969)), with skill being presumed on the part of the artisan, rather than the lack thereof (see *In re Sovish* 769 F.2d 738, 742, 226 USPQ 771, 774 (Fed. Cir. 1985)); further, references may be combined although none of them explicitly suggests combining one with the other (see *In re Nilssen* 7 USPQ2d 1500 (Fed. Cir. 1989)).

As regards appellant's contention of an unexpected result (point "4"), appellant has provided no evidence that an *unexpected* result has been achieved.

In response to appellant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971)

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

2/20/02

FRANK VANAMAN
PRIMARY EXAMINER

FBV (examiner)
JJS (conferee)
EC (conferee) EC
February 20, 2002

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